GTAS November Report

For November there was a combination of software development, bug fixes and a trip to the New York WFO, Eastern Region Headquarters and meetings with Brookhaven emergency managers in Upton NY.

General

A GTAS briefing was given at the NYC WFO that was attended by WFO staff, Eastern Region Headquarters staff and Brookhaven emergency managers. The briefing was very well received and afterward we visited Eastern Region Headquarters to discuss placement of the GTAS server and its systems support. Due to the workload at the WFO we agreed to schedule an installation there after January 2010.

A GTAS system was installed and demonstrated at the IAEM Conference in Orlando. During the conference a number of demonstrations were given, and, a CAP V1.1 message was disseminated from GTAS to other vendor systems that were able to display the message.

We attended a meeting at FEMA Headquarters to discuss GTAS capabilities and proposed 2010 development and deployments with Antwane Johnson.

A recurring training exercise was conducted with the Seattle Emergency Operations Center. We also conducted a collaboration training exercise with Southern Region. We also conducted a familiarization training exercise for a new employee at the FT Worth WFO. These training exercises are conducted routinely for all sites to insure users maintain currency and get their feedback about the effectiveness of the GTAS application.

Development

Users in Seattle found a problem with the GTAS application and also gave us several suggestions for changes to the GUI. We made the needed changes. We contacted the Kansas City WFO about including them in the GTAS Pilot. We developed and sent an example localization domain to the Kansas City WFO for their input (ie, does it cover their county warning area and the domain of the state and local government EOCs. We await their response.

To run the dispersion model we use the high-resolution weather model for its wind and stability data. We reworked the subroutines to use a lower resolution model grid in the event that one of the high-resolution model grids is missing. These processes run in the background and insure that the dispersion model will always have current data to run against.

We fixed an issue with the western edge of the high-resolution model that runs in the Seattle area. One of the forecast fields was showing erroneous data stemming from the lack of meteorological observations in the Pacific. We solved this by using

gridded North American Model (NAM) data as a first-guess field for the smaller domain high-resolution model.

We discovered a minor problem with the toxic plume model navigation (locating the initial point of release at the **exact** lat/lon coordinates input by the user). The navigation error was very small but it was enough that we implemented a correction.

Work on the HTTP communication package to make installations easier and quicker continues.

We began work to assess and verify the high-resolution model gridded data and put together a short plan to assess the validity of GTAS model runs. Several stages of progressively more formal and quantitative evaluation are planned, beginning with qualitative examination ('sanity check') of observed and forecast wind fields within the first of the GTAS domains   (Texas/DFW). Initial examination will be surface and low-level winds within the large (outer) DFW domain. We are doing this because we need to be certain that the atmospheric data that we're feeding into the dispersion model is of sufficient quality to get the correct trajectory of airborne toxins.